one is employed. For the above primer, the complement attached to a microparticle could have the form (SEQ ID NO:4):

5'-[G,W,W,W]$_9$TGG-linker-microparticle"

2. Please amend the paragraph in column 15, lines 22-50, as follows:

"After reverse transcription, the mRNA is removed, e.g. by RNase H digestion, and the second strand of the cDNA is synthesized using, for example, a primer of the following form (SEQ ID NO:6):

~~[5'-NRRGATCYNN-3']~~

5'-NRRGATCYNNN-3'

where N is any one of A, T, G, or C; R is a purine-containing nucleotide, and Y is a pyrimidine-containing nucleotide. This particular primer creates a Bst Y1 restriction site in the resulting double stranded DNA which, together with the Sal I site, facilitates cloning into a vector with, for example, Bam HI and Xho I sites. After Bst Y1 and Sal I digestion, the exemplary conjugate would have the form (SEQ ID NO:19):

5'-RCGACCA[C,W,W,W]$_9$GG[T]$_{19}$- cDNA -NNNR
GGT[G,W,W,W]$_9$CC[A]$_{19}$- rDNA -NNNYCTAG-5'

Preferably, when the ligase-based method of sequencing is employed, the Bst Y1 and Sal I digested fragments are cloned into a Bam HI-/Xho I-digested vector having the following single-copy restriction sites (SEQ ID NO:1):

5'-GAGGATGCCTTTATGGATCCACTCGAGATCCCAATCCA-3'
FokI BamHI XhoI

This adds the Fok I site which will allow initiation of the sequencing process discussed more fully below. "

3. Please amend the paragraph in column 23, lines 64-67, as follows:

"A mixture of three target polynucleotide-tag conjugates are obtained as follows: First, the following six oligonucleotides are synthesized and combined pairwise to form tag 1, tag 2, and tag 3 (SEQ ID NO:9, SEQ ID NO:10 and SEQ ID NO:17):"

4. Please amend the paragraph in column 24, line 64, to column 25, line 32, as follows:

"A repertoire of 36-mer tags consisting of nine 4-nucleotide subunits selected from Table I is prepared by separately synthesizing tags and tag complements by a split and mix approach, as described above. The repertoire is synthesized so as to permit ligation into a Sma I/Hind III digested M13mp19. Thus, as in Example I, one set of oligonucleotides begins with the addition of A followed by nine rounds of split and mix synthesis wherein the oligonucleotide is extended subunit-wise by 3'-phosphoramidite derivatived 4-mers corresponding to the subunits of Table I. The synthesis is then completed with the nucleotide-by-nucleotide addition of one half of the Sma I